DOCUMENT RESUME

ED 354 087 PS 021 136

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TITLE In Search of Mediating Processes: Emotional Cues as Links between Family and Peer Systems.
PUB DATE Apr 91
NOTE 12p.; Paper presented at the Biennial Meeting of the Society for Research in Child Development (Seattle, WA, April 18-20, 1991).
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Affective Behavior; Anger; *Emotional Response; Facial Expressions; Games; Parent Child Relationship; *Peer Acceptance; *Popularity; *Preschool Children; Preschool Education; *Rejection (Psychology); Sex Differences
IDENTIFIERS Replays (Video)

ABSTRACT

This study examined children's popularity with peers and the emotional cues that were observed during parent-child interactions. Twenty-eight 4- and 5-year-olds were observed in their preschool classroom and categorized as popular or rejected. The children then participated in a two-person game with each of their parents. The play was videotaped, and facial and vocal cues were coded into 14 emotional and interactional categories. The total number of seconds that each participant displayed the cue in each category was tallied for mothers, fathers, and children. Tallies showed that parents of rejected children displayed more anger and neutral cues than other parents. Parents of popular children displayed more affective instruction cues and apologetic cues. Rejected children showed more neutral cues, and popular children more happy and laughing cues. Anger cues of rejected children correlated to a greater degree with the anger cues of their fathers than with the anger cues of their mothers. (ME)

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In search of mediating processes: Emotional cues as links between family and peer systems

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ED354087

SRCD 1991, Seattle, WA
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Abstract

The role of discrete emotional cues in accounting for family-peer links was explored. Popular and rejected preschoolers and their parents displayed different patterns of emotions during physical play. Parents of rejected children showed more anger and more neutral cues. Parents of popular children gave more affect-laden guidance and apologized more. Rejected children showed more neutral cues while popular children displayed more positive affect. Fathers and rejected children showed a pattern of reciprocating anger displays which was not apparent in mother-rejected child or parent-popular child dyads. Mothers showed more happiness and laughter than fathers, who showed more neutral cues. The study supports the mediating role of emotion in accounting for family-peer links.

Introduction

In spite of an interest in the links between family and peer social systems, the mediating processes that account for these relationships are still poorly understood. There is a growing body of literature which suggests a link between children's emotional skills and their peer status. Children's peer status has been linked to the ability to pose (Buck, 1975; 1977; Field & Walden, 1982) and identify (Field & Walden, 1982; Edwards, Manstead, & MacDonald, 1984) facial expressions of emotion, and to children's use of emotional cues in interactions with peers (Strayer, 1980; Sroufe, Schork, Motti, Lawroski, & LaFreniere, 1984; Lennon & Eisenberg, 1987; Denham, McKinley, Couchoud, & Holt, 1990). A number of investigators have suggested that variations in emotional expressivity

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during parent-child interactions may account for some of the variation in expressivity seen in children's play with peers (Cummings & Cummings, 1988; Dunn, 1988; Parke, Carson, Burks, & Bhavnagri, 1989). However, most of the research which attempts to examine linkages between expressivity during parent-child interaction and children's peer status has focused largely on global ratings of positive and negative affect and little attention has been paid to examining the exchange of specific categories of emotional cues (e.g., Denham, Renwick, & Holt, 1991).

The purpose of this study was to examine the interchange of emotional cues during the parent-child interactions of popular and rejected children. Children were selected as either popular or rejected using a sociometric nomination procedure (Coie, Dodge, & Coppotelli, 1982) conducted in their preschool/daycare classroom. Previous research has suggested that parent-child physical play is a particularly fruitful context in which to observe the exchange of emotional cues (MacDonald & Parke, 1984). Unfortunately, free physical play does not lend itself to an analysis of the exchange of facial displays of emotions because of the constant movement which occurs. To overcome this problem a physical play paradigm was developed which still permitted micro analysis of the exchange of facial cues. To quantify the observations, a mutually exclusive and exhaustive coding catalog which utilized facial, verbal, and postural cues was developed to categorize observed behaviors. The development of the paradigm and the coding system provided the tools with which to accomplish the goal of examining at a micro level the interchange of emotional cues during parent-child interaction.

Method

Subjects

Participants were twenty-eight four- and five-year-old preschool children and their parents. A sociometric nomination procedure (Coie, Dodge, & Coppotelli, 1982) was used to screen participants. Half of the child participants had been classified as popular and half had been classified as rejected. The children were also equally divided by sex with fourteen boys and fourteen girls. Cells were balanced with seven popular boys, seven popular girls, seven rejected boys, and seven rejected girls. Child participants were invited to the play lab twice, once with mother and once with father.

Procedure

Parent and child were seated facing one another at eye level. This was facilitated by seating the child on a bar stool and having the parent sit across from the child on a chair. The participants were taught the "hand game." One person was instructed to place her hands on her shoulders, and the other person was to clasp her hands together in front of her body. The object of the game was for the first person to reach out and grab the other person's hands before that other person could pull them away. The parent-child dyad was told that they should play that game or any other hand game as long as they stayed in their seats, and the experimenter would return in about eight minutes.

Coding

Videotapes were coded by eleven undergraduate research assistants who did not know the children's sociometric status. A mutually exclusive and exhaustive coding catalog which utilized facial, verbal, and postural cues was devised to code the videotapes second by second for the full eight minutes. Mean reliability between coders was .77 (Cohen's Kappa) with a range of .75 to .82.

The categories in the code catalog were: Happy, Laugh, Surprise, Joking/Silly, Apologetic, Praise, Pouting/Whine, Anger, Affect Instruction,

Tease, Copy/Mock, Mock Threat, Boredom, and Neutral. While the content of many of the categories is apparent from their label, a few explanations will help the reader to understand the others. Laugh was distinguished from happy primarily through verbal components to the behavior such as laughter, screeching, or giggling. Apologetic covered verbal apologies and/or submissive behaviors related to a previous wrongdoing. Affect Instruction was a category which represented attempts by the participants to provide their partners with game rules in a pleasant or playful tone, as opposed to a more neutral or angry tone. The Copy/Mock category was used to code the duplication of a play partner's affect for the purpose of teasing. Mock Threat was a behavioral code which represented a quick jerk of the shoulders, arms, and hands by the "hand grabber" during the hand game in an attempt to make the "hand grabbee" flinch. Finally, the Neutral category was used to code the flat affect state that was portrayed by the participants during much of the eight minute interaction. In addition, Neutral was also used as a catch-all category, containing behaviors which could not be coded in other categories. However, these "unknown" codes comprise less than one percent of the total Neutral codes.

Results

Analyses

The total number of seconds (out of a possible eight minutes) that participants portrayed each code category was tallied for fathers, mothers, children interacting with fathers, and children interacting with mothers. For parents (N=56), the participants' sums for each code category were placed into a multiple regression with sex of parent, sex of child, and child status as the independent variables. For children (N=28), the participants' sums for each code category were placed into an ANOVA with children's totals during interaction with mother or father as a within subjects variable, and with sex of child and

status of child as between subjects variables. For both parents and children, in addition to being analyzed separately, the happy and laugh categories were combined into an overall positive affect category. Both parents and children's sums for the code categories happy, laugh, anger, and neutral were placed in a correlation matrix (N=28). These codes were used because of their relatively high frequencies. This matrix was then decomposed into two separate status matrices (N=14) for popular and rejected children and their parents.

Sociometric status differences

Parents of rejected children displayed more Anger cues ($p<.05$) and there was a trend for them to display more Neutral cues as well ($p<.10$). Parents of popular children displayed more Affective Instruction ($p<.05$) and Apologetic cues ($p<.05$). Rejected children displayed more Neutral cues ($p<.05$), while popular children showed more positive affect (happy and laugh categories combined, $p<.05$).

Sex differences

Fathers displayed more Neutral cues ($p<.05$) and tended to Joke more often ($p<.10$). Mothers displayed more positive affect (happy and laugh categories combined, $p<.01$). There was a tendency for parents to joke more with sons than with daughters ($p<.10$).

Relationships between parent and child displays and consistency across child contexts

Correlations show (Table 1) a relationship between the amount of happy, laugh, and neutral that parents and children display during interaction with one another (e.g., the amount of happy the father displayed was positively related to the amount of happy the child displayed while interacting with the father, $r=.49$). There was also a positive relationship between children and fathers' display of anger. Children showed consistency across mother and father interaction

contexts for happy, laugh, and neutral (e.g., children showed similar amounts of happy in their interactions with both mothers and fathers, r=.51). A breakdown by sociometric status (Table 2) showed positive correlations between child and parent laugh in popular dyads, while the rejected dyads were better at reciprocating the lower level happy affect. The breakdown of the data for the expression of anger showed a number of interesting results. Despite the fact that rejected children displayed similar amounts of anger during interaction with both their mothers and their fathers (r=.85), their anger displays were only correlated with those of fathers (r=.60) and not with the anger displays of mothers (r=-.07).

Discussion

This investigation revealed interesting sociometric status related differences in the emotional signals of parents and children engaged in face-to-face physical play. The findings provide some support for earlier hypotheses regarding status related variations in parent-child play. Of foremost interest is the finding that the parents of rejected children displayed significantly more anger than the parents of popular children. Other lines of research have suggested that children's exposure to anger may have a serious impact on children's social development (Cummings & Cummings, 1988). In addition to displaying more anger, parents of rejected children also displayed more neutral affect, suggesting that parents of rejected children might not be providing their children with as many opportunities to engage in emotion interchange as the parents of popular children provide their children with. On the other hand, parents of popular children used affect to demonstrate regret and to instruct their children. Children seemed to respond to these different patterns of emotional expressivity. Popular children displayed more positive affect while rejected children tended to remain affectively flat.

Correlations revealed interesting relationships between the expressivity of parents and children in the popular and rejected groups. This preliminary analysis suggests two things. First, popular children and their parents do a much better job of exchanging high intensity positive affect. Secondly, anger exchanges within parent-child dyads appear to be restricted to rejected children interacting with their fathers. This is particularly interesting given the high correlation between the amount of anger rejected children display while playing with mother and while playing with father. One interpretation is that child anger was not correlated with mother anger in rejected parent-child dyads because mothers were very good at "dampening" or extinguishing outbreaks of child anger. Fathers, on the other hand, appear to have engaged in a strategy of reciprocating anger displays with their children. This process of reciprocating anger has been described by Patterson (1982) in the interactions of coercive families and by Gottman (1980) in marital interactions.

However, given the correlational nature of these analyses, these hypotheses remain speculative. It is impossible to know whether children are reacting to the displays of parents, whether parents are reacting to the displays of children, or whether it is some patterned combination of the two. In addition, these analyses tell us nothing about the impact of emotional expressivity on the behavior of the participants. These preliminary analyses are being followed up by sequential analyses which will help us to understand the process of emotion exchange in popular and rejected parent-child interactions. In addition to the second by second coding of emotions, we also have coded behavioral transition points in the interactions (changes in the structure of existing games, or changes to new games), and we will be examining the impact of emotional cues on behavior transitions and vice-versa. It is hoped that this analysis strategy will

reveal interesting patterns of differences in the interactions of popular and rejected children and their parents.

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Relationships between Parent and Child Displays and Consistency across Child Contexts			
Pearson r N=28	Relationship between parent & child displays		Consistency across child contexts
	Child to Father	**Child to Mother**	**Child w/Father to Child w/Mother**
Happy	.485**	.618**	.508**
Laugh	.555**	.633**	.675**
Anger	.572**	.004	.088
Neutral	.622**	.432*	.508**

**p<.01, *p<.05

TABLE 1

Breakdown of Correlations into Popular and Rejected Groups						
Pearson r N=14	**Father-Child Dyad**		**Mother-Child Dyad**		**Child Across Contexts**	
	Rejected	Popular	Rejected	Popular	Rejected	Popular
Happy	.555*	.448	.748***	.567*	.225	.576*
Laugh	-.007	.795***	.445	.65**	.362	.799***
Anger	.60*	•	-.072	-.131	.851***	•
Neutral	.615**	.601*	.349	.751***	.371	.519

***p<.01, **p<.02, *p<.05
• popular children did not show anger with fathers

TABLE 2